

B-CONTROL ► DEEJAY BCD2000

User's Manual

GB

Version 1.0 June 2005



www.behringer.com



IMPORTANT SAFETY INSTRUCTIONS




CAUTION:

WARNING:



DETAILED SAFETY INSTRUCTIONS:

- 1) Read these instructions.
 - 2) Keep these instructions.
 - 3) Heed all warnings.
 - 4) Follow all instructions.
 - 5) Do not use this apparatus near water.
 - 6) Clean only with dry cloth.
 - 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
 - 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
 - 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
 - 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
 - 11) Only use attachments/accessories specified by the manufacturer.
 - 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
 - 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
 - 15) CAUTION - These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions unless you are qualified to do so.

B-CONTROL ► DEEJAY BCD2000

The Ultimate DJ Machine—Play, Mix and Scratch any MP3 and WAV Files just like Vinyl Records

GB

- ▲ Play, mix and scratch any MP3 and WAV files just like vinyl records with ultra-low latency
- ▲ Full-speed USB 4-channel audio interface plus high-resolution 24-bit A/D and D/A converters
- ▲ Perfectly complements the included BEHRINGER B-DJ software or any other DJ software
- ▲ 2 scratch wheels support creative DJing such as scratching, pitch bending and cue searching
- ▲ Full-fledged DJ mixer control panel with premium quality mic preamp, 3-band kill EQ per channel, ultra-precise faders, super-smooth crossfader and talkover function
- ▲ 2 state-of-the-art phono preamplifiers—one switchable to CD player
- ▲ Sophisticated headphone section includes PFL Mix, Split options and direct listening to master output mix
- ▲ Play, Pause, Cue, Loop and Pitch Bend functions via dedicated controls for intuitive DJing
- ▲ 4 user-assignable controls and buttons available for integrated FX section
- ▲ Innovative Cue logic with multiple storable cue points per song
- ▲ High-quality components and exceptionally rugged construction ensure long life
- ▲ Conceived and designed by BEHRINGER Germany

BCD2000

FOREWORD



U. J.

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1. INTRODUCTION

👉 The following user's manual is intended to familiarize you with the unit's control elements, so that you can master all the functions. After having thoroughly read the user's manual, store it in a safe place for future reference.

1.1 Before you get started

1.1.1 Shipment

- 👉 Damaged equipment should NEVER be sent directly to us. Please inform the dealer from whom you acquired the unit immediately as well as the transportation company from which you took delivery. Otherwise, all claims for replacement/repair may be rendered invalid.
- 👉 To assure optimal protection of your B-CONTROL during use or transport, we recommend utilizing a carrying case.
- 👉 Please always use the original packaging to avoid damage due to storage or shipping.
- 👉 Never let unsupervised children play with the B-CONTROL or with its packaging.
- 👉 Please dispose of all packaging materials in an environmentally friendly fashion.

1.1.2 Initial operation

WARNING!

👉 We would like to bring your attention to the fact that extremely loud sound levels may damage your hearing as well as your headphones. Please turn the MASTER control all the way to the left before powering up the unit. Always try to keep volume at appropriate levels.

1.1.3 Online registration

1.2 System requirements

®

DirectX® 8.1 or higher is required in all cases!

2. INSTALLATION

2.1 Driver installation

®

"Found New Hardware Wizard"

software installation"

"Continue anyway"


"Finish"

software installation"

"Continue anyway"

"Automatic

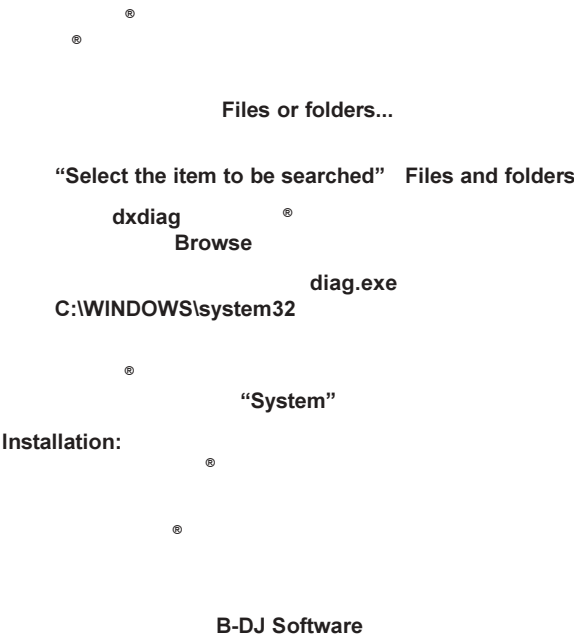
"Automatic


 Note for notebook users: If you encounter problems operating the BCD2000 from your system, please disable the following settings:

1. In the Device Manager (right click on My Computer > Manage > Device Manager), click option “Batteries” > disable Microsoft ACPI-Compliant Control Method Battery.
2. In the USB Controller, do the following *for each single* USB Root Hub: Right click > Properties > Power management > disable the option “Allow the computer to turn off this device to save power”.
3. Restart Windows® XP. Now the system performance of your computer should be more stable.

2.2 Installation of the B-DJ software

Preparatory steps:



 Please note that the B-DJ Software can only be used if the BCD2000 hardware is connected and switched on!

2.3 Control panel software

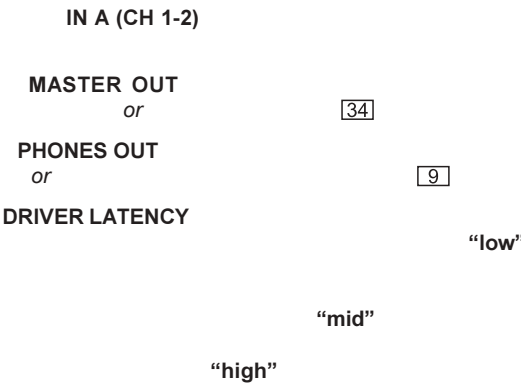
GLOBAL MODE selection:
B-DJ


ADVANCED

The ASIO page:



Fig. 2.1: The ASIO window in the BCD2000 control panel



 “Latency” is the time that elapses between an operator action on the BCD2000 (e. g. pressing the PLAY button) and the actual output of the audio signal from the OUT connectors. Latency depends on the system used and the processing speed of your computer. Typical latencies are in the milliseconds range (1 ms = one thousandth of a second). Most people cannot hear latencies below 10 ms. When audio signals are passing through a computer, it is impossible to achieve a 0-ms latency.

The screenshot displays the Behringer BCD2000 Control Panel software. At the top, the Behringer logo and product name are visible. The interface is divided into several sections:

- Top Section:** Contains tabs for **ASIO**, **WDM / MME**, and **MIDI**.
- Left Section:**
 - IN A:** Includes a **MIC** input with a gain knob and a **PHONO A** input with a gain knob.
 - IN B:** A section for the second input channel.
- Right Section:**
 - RECORD SELECT:** Includes **IN A** and **IN B** input selection buttons.
 - PLAYBACK:** A section for playback settings.
- Bottom Section:**
 - GLOBAL MODE:** Includes a **B-DJ** button and an **Advanced** button.
 - Firmware:** A section for firmware updates.
 - USB Driver:** A section for USB driver installation.
 - ASIO Driver:** A section for ASIO driver installation.
 - WDM DRIVER:** A section for WDM driver installation.

RECORD SELECT IN B IN A

The screenshot displays the Behringer BCD2000 Control Panel software interface. At the top, the title bar reads "BEHRINGER® BCD2000 CONTROL PANEL" with a red close button on the right. Below the title bar, there are three tabs: "ASIO", "WDM / MME", and "MIDI". The "MIDI" tab is currently selected and highlighted in blue. The main area is divided into two columns. The left column is titled "B-DJ Mode" and contains a "MIDI functionality" section with the text "Buttons: toggle off" and "LEDs: individual MIDI RX". The right column is titled "Advanced Mode" and contains a "MIDI functionality" section with the text "Buttons: toggle on" and "LEDs: coupled to buttons". On the far right, there is a "CONTROL PANEL" section. It features a "B-CONTROL" logo with a stylized 'B' and the text "BCD2000". Below this, there is a "GLOBAL MODE" section with two buttons: "B-DJ" and "Advanced". The "B-DJ" button is currently selected and highlighted in blue. At the bottom of the "CONTROL PANEL" section, the text "Firmware: USB Driver: ASIO Driver: WDM DRIVER:" is displayed.

BEHRINGER® BCD2000 CONTROL PANEL

ASIO WDM / MME MIDI

B-DJ Mode

MIDI functionality

Buttons: toggle off
LEDs: individual MIDI RX

Advanced Mode

MIDI functionality

Buttons: toggle on
LEDs: coupled to buttons

B-CONTROL
BCD2000

GLOBAL MODE

B-DJ

Advanced

Firmware:
USB Driver:
ASIO Driver:
WDM DRIVER:

GLOBAL MODE

B-DJ

B-DJ

ADVANCED

ADVANCED

3. CONTROL ELEMENTS AND CONNECTIONS

3.1 Control surface

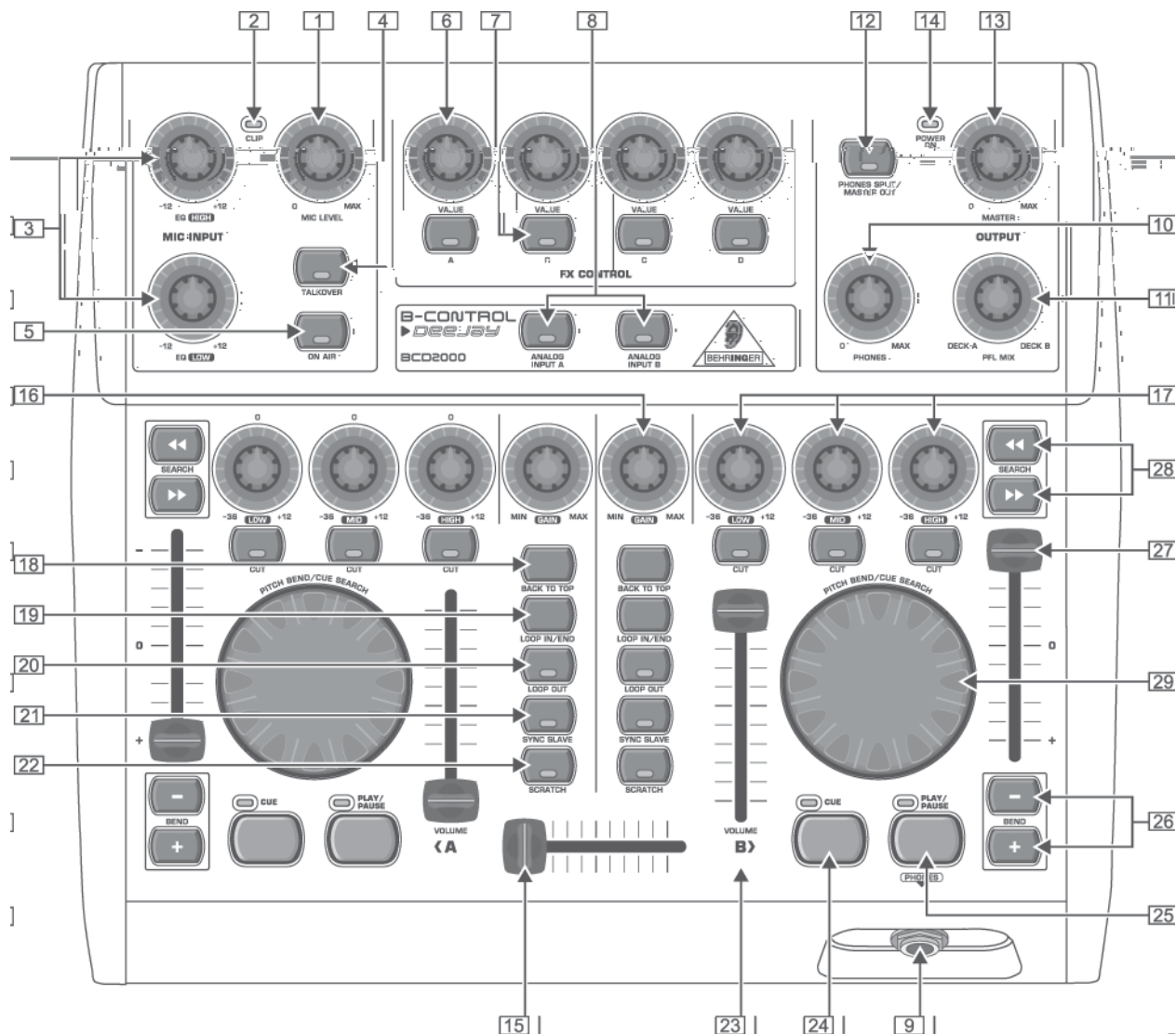


Fig. 3.1: The BCD2000's control elements

The microphone input section (MIC INPUT)

- 1 MIC LEVEL
- 2 CLIP
- 3 EQ HIGH EQ LOW
- 4 TALKOVER
- 5 ON AIR

The FX CONTROL section

- 6 A D 7
- 8 ANALOG INPUT
- 9 THE OUTPUT section PHONES
- 10 PHONES
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29
- 30
- 31
- 32
- 33

- [11] PFL MIX
- [12]
- [12] PHONES SPLIT/MASTER OUT
- [13] MASTER OUTPUT [34]
- [14] POWER ON
- The deck sections A and B**
- [15]
- [16] GAIN
- [17] HI, MID LOW
- CUT
- [18] BACK TO TOP
- [19] LOOP IN/END
- [20] LOOP OUT [19]
- [21] SYNC SLAVE
- SYNC SLAVE
- [22] SCRATCH
- [23] VOLUME
- [24] CUE
- [25] PLAY/PAUSE

- [26] BEND UP DOWN
- [27]
- [28] SEARCH
- [29]

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3.2 The rear panel

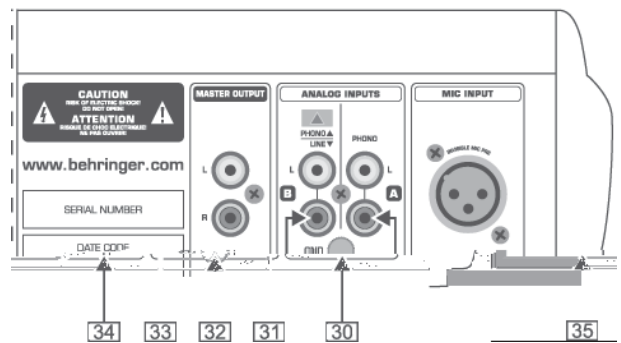


Fig. 3.2: The rear-panel audio connectors of the BCD2000

- [30] MIC INPUT MIC IN
- [31] PHONO
- [32] GND
- [33] LINE
- [34] MASTER OUTPUT [13]
- [35] SERIAL NUMBER

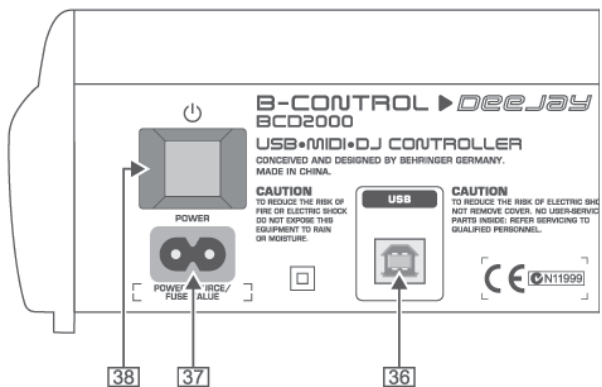


Fig. 3.3: POWER switch, mains and USB connectors

36

37

38 POWER

ⓘ Please note: The power switch does not completely separate your BCD2000 from AC power. If you plan on not using your BCD2000 for a prolonged period of time, please disconnect it from the mains by removing the power cable from the wall outlet.

4. THE B-DJ SOFTWARE

Configuration > Help)



Fig. 4.1: The main B-DJ window

5. OPERATION

5.1 First steps

Wiring

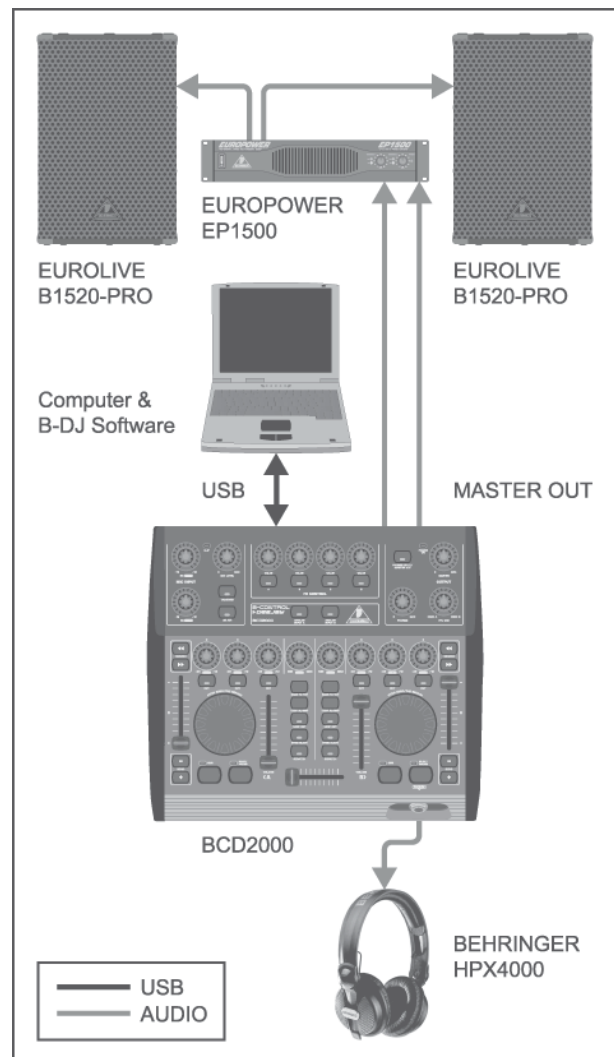


Fig. 5.1: Standard wiring of the BCD2000

34

9

Program launch



5.3 Expanded setup

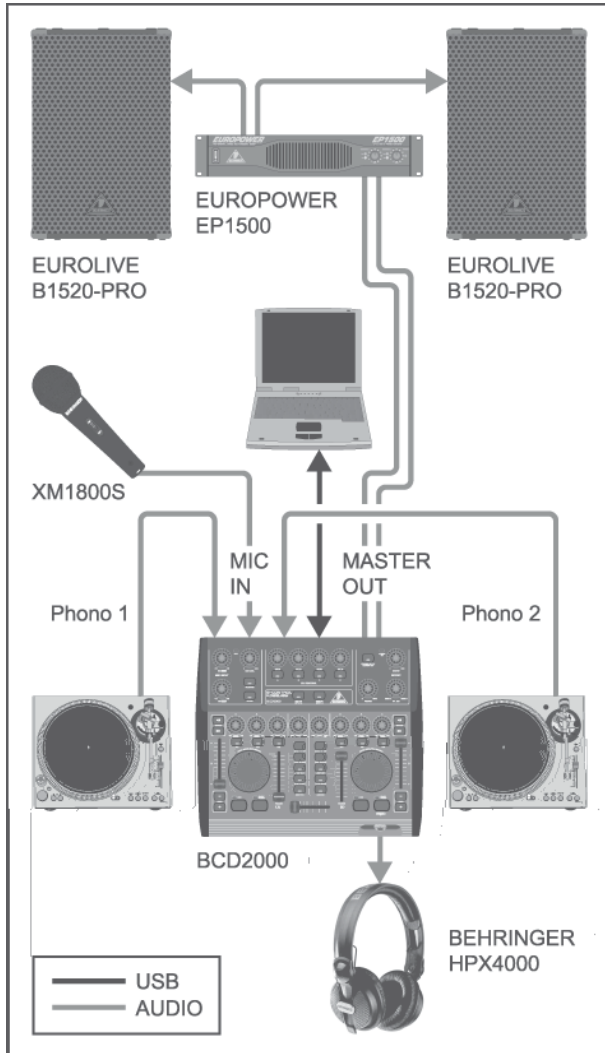


Fig. 5.2: Expanding the standard setup

5.4 Signal routing

5.4.1 Routing options with ASIO driver

B-DJ Mode:

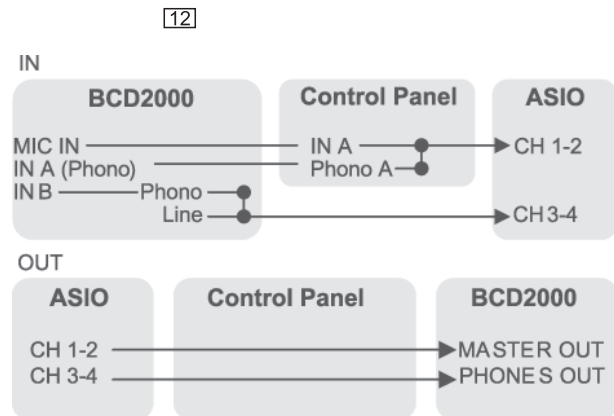


Fig. 5.3: Audio routing in B-DJ mode (ASIO driver)

Advanced Mode:

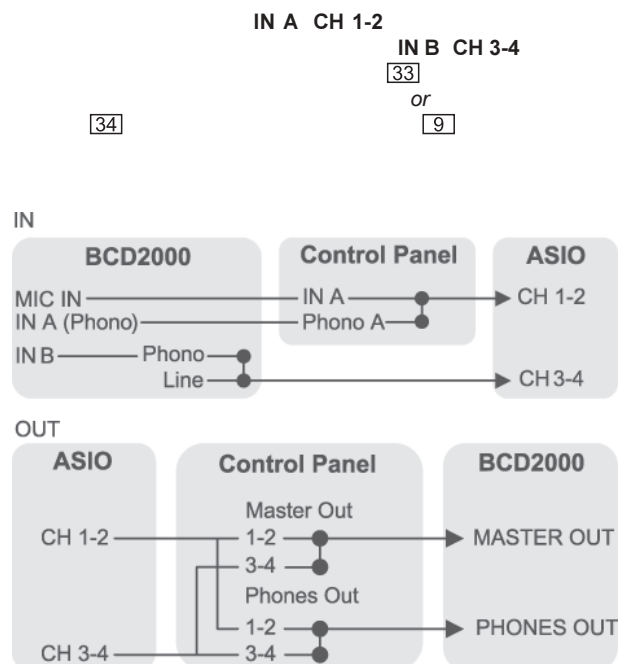


Fig. 5.4: Audio routing in Advanced Mode (ASIO)

5.4.2 Routing options with WDM/MME driver

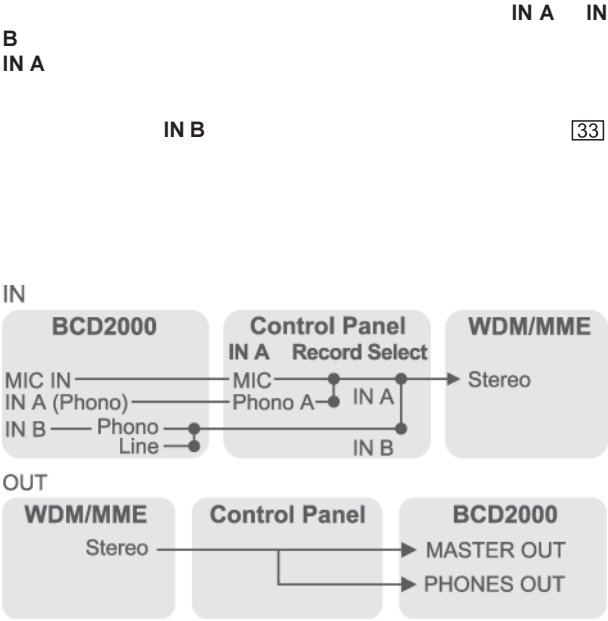


Fig. 5.5: Audio routing with the WDM/MME driver

6. MIDI CONTROL

M I D I

note messages

Control Change

6.1 Sending control change functions

Rotary control functions:

Group	Name	MIDI CC no.
DECK A	LOW (EQ)	3
	MID (EQ)	4
	HIGH (EQ)	5
	GAIN	6
DECK B	LOW (EQ)	7
	MID (EQ)	8
	HIGH (EQ)	9
	GAIN	10
FX CONTROL	Value A	13
	Value B	14
	Value C	15
	Value D	16
OUTPUT	PFL MIX	17

Table 6.1: MIDI commands for transmitting rotary control functions

Infinitely variable encoder functions:

Group	Name	MIDI CC no.
DECK A	PITCH BEND/CUE SEARCH WHEEL	19*
DECK B	PITCH BEND/CUE SEARCH WHEEL	18*

Table 6.2: MIDI commands for transmitting infinitely variable encoder functions

Fader functions:

Group	Name	MIDI CC no.
DECK A	PITCH Fader	11
	VOLUME Fader	0
DECK A<>B	CROSS Fader	1
DECK B	PITCH Fader	12
	VOLUME Fader	2

Table 6.3: MIDI commands for transmitting fader functions

6.2 Sending button functions

(For a permanent note-on command, please select "toggle on" in the software.)

Group	Name	MIDI note no.	MIDI note name
DECK A	SEARCH <<	0	C -1
	SEARCH >>	1	C# -1
	BEND -	2	D -1
	BEND +	3	D# -1
	LOW CUT	12	C 0
	MID CUT	13	C# 0
	HIGH CUT	14	D 0
	BACK TO TOP	4	E -1
	LOOP IN/END	15	D# 0
	LOOP OUT	5	F -1
	SYNC SLAVE	16	E 0
	SCRATCH	17	F 0
	CUE	18	F #0
	PLAY/PAUSE	19	G 0
DECK B	SEARCH <<	6	F# -1
	SEARCH >>	7	G -1
	BEND -	8	G# -1
	BEND +	9	A -1
	LOW CUT	20	G #0
	MID CUT	21	A 0
	HIGH CUT	22	A# 0
	BACK TO TOP	10	A# -1
	LOOP IN/END	23	B 0
	LOOP OUT	11	B -1
	SYNC SLAVE	24	C 1
	SCRATCH	25	C# 1
	CUE	26	D 1
	PLAY/PAUSE	27	D# 1
MIC INPUT	TALKOVER	29	F 1
	ON AIR	30	F# 1
FX CONTROL	Button A	31	G 1
	Button B	32	G# 1
	Button C	33	A 1
	Button D	34	A# 1
INPUT SELECT & OUTPUT	ANALOG INPUT A	35	B 1
	ANALOG INPUT B	36	C 2
	PHONES SPLIT	28	E 1

Table 6.4: MIDI commands for transmitting button functions

6.3 Receiving MIDI commands

Group	Name	MIDI CC no.
DECK A	LOW CUT	24
	MID CUT	23
	HIGH CUT	22
	LOOP ON/OFF	21
	SYNC SLAVE	20
	SCRATCH	19
	CUE	18
DECK B	PLAY/PAUSE	17
	LOW CUT	16
	MID CUT	15
	HIGH CUT	14
	LOOP ON/OFF	13
	SYNC SLAVE	12
	SCRATCH	11
MIC INPUT	CUE	10
	PLAY/PAUSE	9
MIC INPUT	TALKOVER	8
	ON AIR	7
FX CONTROL	Button A	6
	Button B	5
	Button C	4
	Button D	3
INPUT SELECT & OUTPUT	ANALOG INPUT A	2
	ANALOG INPUT B	1
	PHONES SPLIT	25

Table 6.5: MIDI commands for receiving button LED statuses

Data request for all moving elements:

MIDI CC no.
100

Table 6.6: Controller for data request

Selecting the input channel:

program change

ANALOG INPUT A selection	MIDI channel	MIDI message
PHONO A IN	CH. 1	Program Change 0
MIC IN	CH. 1	Program Change 1

Table 6.7: Switching the analog input using program change commands

7. AUDIO CONNECTIONS

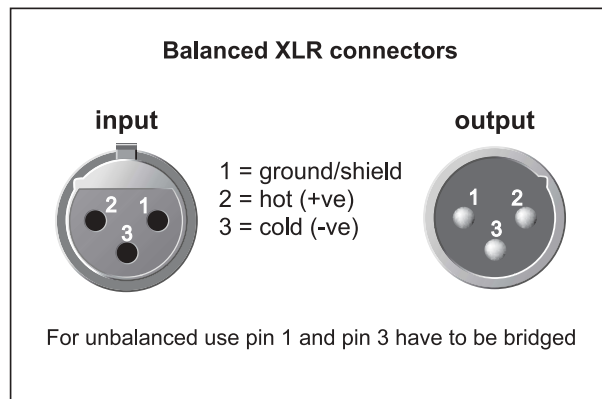
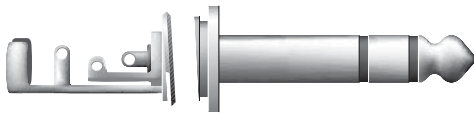


Fig. 7.1: XLR connector



9. WARRANTY

§ 1 OTHER WARRANTY RIGHTS AND NATIONAL LAW

§ 2 ONLINE REGISTRATION

§ 3 WARRANTY

§ 4 RETURN AUTHORIZATION NUMBER

BEFORE

§ 5 WARRANTY REGULATIONS

§ 6 WARRANTY TRANSFERABILITY

§ 7 CLAIM FOR DAMAGES

